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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/324,905	06/02/1999	RAY A. BITTNER JR.	MS1-317US	2156
22801	7590	12/30/2003	EXAMINER	
LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201			VO, LILIAN	
			ART UNIT	PAPER NUMBER
			2127	8

DATE MAILED: 12/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/324,905	<b>Applicant(s)</b> BITTNER ET AL.	
	<b>Examiner</b> Lilian Vo	<b>Art Unit</b> 2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. Claims 1 – 36 are pending.

***Response to Arguments***

2. Applicant's arguments with respect to claims 1, 3, 5, 8, 9, 12, 14, 16, 17, 20, 21, 24, 26, and 31 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 13, 28 – 30 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claim 13** recited “a register initialization function that is callable by from the threads...”

The examiner believes there is a typographical error.

**Claims 28 - 30** recited “to performs ...”, page 10, lines 20 and 24, page 11, lines 5 and

13. The examiner believes there is a grammatical error.

**Claim 32** appears to be a run-on sentence.

Appropriate correction is required.

*Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 4 – 8, 10 – 13, 15, 16, 18 – 20, 22 – 26, 28 – 30, 32, 33 and 35 -36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watson (US Pat. 5,655,132) in view of applicants' admitted prior art.

Regarding **claim 1**, Watson discloses in a computing device having a processor that generates a first address signal of a first width and a second address signal of a second width that is greater than the first width (col. 10, lines 13 – 21, 44 – 59, fig. 5), a method comprising:

concurrently executing threads of a plurality of application programs, wherein different ones of the threads indicate one or more address extensions to an operating system (abstract, col. 3, lines 31 - 44);

storing the address extensions for use by the operating system (col. 12, lines 1 - 5);

repeatedly switching between execution of the threads (col. 6, lines 37 – 50, col. 11, lines 60 – 64, col. 12, lines 1 - 5); and

prior to executing a particular thread, writing the address extension of the base address indicated by the particular thread to the extension register (col. 12, lines 1 - 5).

Watson however did not mention that the second address signal is produced in the computing device by concatenating an address extension from an address extension register with

the first address signal and that the second address signal is addressing the peripheral devices. Nevertheless, applicants' admitted prior art discloses that the second address signal is produced by concatenating an address extension from an address extension register with the first address signal to address one or more peripheral devices (specification page 2, lines 1 – 3, page 3, lines 1 – 21 and fig. 1). Therefore, it would have been obvious for one of ordinary skill in the art, at the time the invention was made to incorporate the applicants' admitted prior art to Watson to have a system with addressing peripheral devices so that accessing to different PCI devices can be done with context switching by loading proper values into the register when switching tasks to access the corresponding peripheral devices.

**Claim 2** is rejected on the same ground as stated in claim 1 above.

Regarding **claim 3**, Watson did not clearly disclose the individual address extensions identify address ranges associated with one or more peripheral devices. Nevertheless, this feature is shown by the applicants' admitted prior art, where each device is assigned with an address range (specification page 2, lines 1 – 3, page 3, lines 6 – 21). Therefore, it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to incorporate this feature to Watson's invention to address the peripheral devices and accessing each device within its address ranges.

Regarding **claim 4**, Watson did not mention the additional limitation as claimed in claim 4. Nevertheless, applicants' admitted prior art discloses the step of calling an operating system device driver to invoke an initialization function to indicate the one or more base addresses (specification page 4, lines 1 - 3). Therefore, it would have been obvious for one of ordinary skill in the art, at the time the invention was made to combine applicants' admitted prior art to

Watson's system to address the peripheral devices by calling the OS device driver to invoke an initialization function.

**Claims 5 – 26** are rejected on the same ground as stated above.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Pat Publication 2003/0191927 A1, US 5,201,039, US 6,324,594 B1 and US 5,421,014, US 5,680,598 and US 6,230,259 B1, US 5,390,301.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilian Vo whose telephone number is 703-305-7864. The examiner can normally be reached on Monday - Thursday, 7:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 703-305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Lilian Vo  
Examiner  
Art Unit 2127

lv  
December 23, 2003

THOMAS LEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100